WEST Search History

DATE: Friday, November 22, 2002

Set Name side by side	Query	Hit Count	Set Name result set
DB=JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=OR			
L11	L10 and l9	67	L11
L10	telephone or phone or telecommunication or communication	799016	L10
L9	L8 and l7 and l5	1008	L9
L8	predict$3 or assum$5	101763	L8
L7	(line or loop)	1568060	L7
L6	L5 and l4	0	L6
L5	(neigh$8 or proxy or adjacent)	599112	L5
L4	(pre-qualification) or (pre adj qualification)	10	L4
DB=USPT; PLUR=YES; OP=OR			
L3	L2 and (line or loop)	8	L3
L2	L1 and (neigh$8 or proxy or adjacent)	8	L2
L1	(pre-qualification) or (pre adj qualification)	34	L1

END OF SEARCH HISTORY

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=> d his full

     (FILE 'HOME' ENTERED AT 11:11:51 ON 22 NOV 2002)

     FILE 'INSPEC' ENTERED AT 11:12:07 ON 22 NOV 2002
L1        658163 SEA ABB=ON  PLU=ON  (ASSUM? OR PREDICT?)
L2        125062 SEA ABB=ON  PLU=ON  ADJACENT OR NEIGH? OR PROX?
L3          7529 SEA ABB=ON  PLU=ON  (LINE OR LOOP) (A) (TELEPHONE OR PHONE OR
                 TELECOMMUNICATION OR COMMUNICATION)
L4             7 SEA ABB=ON  PLU=ON  L1 AND L2 AND L3
                 D HIT ALL 1-7


     FILE HOME

     FILE INSPEC
     FILE LAST UPDATED: 18 NOV 2002       <20021118/UP>
     FILE COVERS 1969 TO DATE.
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FILE 'INSPEC' ENTERED AT 11:12:07 ON 22 NOV 2002
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FILE LAST UPDATED: 18 NOV 2002       <20021118/UP>
FILE COVERS 1969 TO DATE.

=> s (assum? or predict?)
        287786 ASSUM?
        398159 PREDICT?
L1      658163 (ASSUM? OR PREDICT?)

=> s adjacent or neigh? or prox?
         37782 ADJACENT
             4 ADJACENTS
         37784 ADJACENT
                 (ADJACENT OR ADJACENTS)
         68531 NEIGH?
         20894 PROX?
L2      125062 ADJACENT OR NEIGH? OR PROX?

=> s (line or loop) (a) (telephone or phone or telecommunication or communication)
        377682 LINE
        200023 LINES
        495727 LINE
                 (LINE OR LINES)
        106439 LOOP
         46655 LOOPS
        135892 LOOP
                 (LOOP OR LOOPS)
         48518 TELEPHONE
          4165 TELEPHONES
         50296 TELEPHONE
                 (TELEPHONE OR TELEPHONES)
          6281 PHONE
          3078 PHONES
          8494 PHONE
                 (PHONE OR PHONES)
        111830 TELECOMMUNICATION
         38605 TELECOMMUNICATIONS
        132882 TELECOMMUNICATION
                 (TELECOMMUNICATION OR TELECOMMUNICATIONS)
        248031 COMMUNICATION
         94559 COMMUNICATIONS
        300531 COMMUNICATION
                 (COMMUNICATION OR COMMUNICATIONS)
L3        7529 (LINE OR LOOP) (A) (TELEPHONE OR PHONE OR TELECOMMUNICATION OR
               COMMUNICATION)

=> s l1 and l2 and l3
L4           7 L1 AND L2 AND L3

=> d hit all 1-7

L4   ANSWER 1 OF 7  INSPEC  COPYRIGHT 2002 IEE
AB   We consider questions of the accuracy of the arrangement of communications
     (transportation lines) on an inhomogeneous territory in passing from a
     continuous problem to a discrete one. It is assumed that in the
     discrete statement of the problem, a communication line
     is laid out with the aid of a digital model of a locality, and its route
     represents the shortest path in a graph. It is shown that for each of the
     "smooth" routes that takes the form of a rectilinear section, a circular
```

arc, a piecewise-linear curve, and a smooth curve consisting of rectilinear and arc portions, respectively, there exists a "discrete" route in close **proximity** to the smooth route. Estimates of this type of closeness are found.

AN 2000:6630186 INSPEC DN C2000-08-1290H-011

TI A digital model of a locality for the problem of arrangement of communications.

AU Lotarev, D.T. (Inst. of Syst. Anal., Acad. of Sci., Moscow, Russia)

SO Automation and Remote Control (Dec. 1999) vol.60, no.12, pt.1, p.1707-13. 3 refs.
Published by: Consultants Bureau
CODEN: AURCAT ISSN: 0005-1179
SICI (Trl): 0005-1179(199912)60:12:1L.1707:DMLP;1-R
Translation of: Avtomatika i Telemekhanika (Dec. 1999) vol.60, no.12, p.41-9. 3 refs.
CODEN: AVTEAI ISSN: 0005-2310
SICI: 0005-2310(199912)60:12L.41;1-5

DT Journal; Translation Abstracted

TC Theoretical

CY Russian Federation; United States

LA English

AB We consider questions of the accuracy of the arrangement of communications (transportation lines) on an inhomogeneous territory in passing from a continuous problem to a discrete one. It is **assumed** that in the discrete statement of the problem, a **communication line** is laid out with the aid of a digital model of a locality, and its route represents the shortest path in a graph. It is shown that for each of the "smooth" routes that takes the form of a rectilinear section, a circular arc, a piecewise-linear curve, and a smooth curve consisting of rectilinear and arc portions, respectively, there exists a "discrete" route in close **proximity** to the smooth route. Estimates of this type of closeness are found.

CC C1290H Systems theory applications in transportation; C1160 Combinatorial mathematics; C1180 Optimisation techniques; C1110 Algebra

CT GRAPH THEORY; MATRIX ALGEBRA; OPTIMISATION; RESOURCE ALLOCATION; TRANSPORTATION

ST digital model; locality; communications arrangement; transportation lines; inhomogeneous territory; shortest path; smooth routes; rectilinear section; circular arc; piecewise-linear curve; smooth curve; discrete route; closeness

L4 ANSWER 2 OF 7 INSPEC COPYRIGHT 2002 IEE

AB Crosstalk theory is applied to the **prediction** of error rates in digital line systems due to analog telephony signaling events on **adjacent** pairs in the same cable. Measurements of the margin against impulsive noise at a given probability of error have been performed, and these show reasonable agreement with **predictions** based on crosstalk theory. For a simple switching event, the regenerator NEXT impulsive noise figure for the near-end crosstalk path is defined. Measurements of the mean and variance of near-end crosstalk attenuation are then used to calculate the maximum exchange section loss (from central office to first line regenerator) which satisfies a suggested error performance criterion.

CT CROSSTALK; DIGITAL COMMUNICATION SYSTEMS; ERROR STATISTICS; **TELEPHONE LINES**

AN 1985:2464746 INSPEC DN B85036895

TI Statistics of impulsive noise crosstalk in digital line systems on multipair cable.

AU Potter, P.G.; Smith, B.M. (Telecom Australia Res. Labs., Melbourne, Vic., Australia)

SO IEEE Transactions on Communications (March 1985) vol.COM-33, no.3, p.259-70. 11 refs.

Price: CCCC 0090-6778/85/0300-0259$01.00
CODEN: IECMBT ISSN: 0090-6778
DT Journal
TC Theoretical
CY United States
LA English
AB Crosstalk theory is applied to the **prediction** of error rates in digital line systems due to analog telephony signaling events on **adjacent** pairs in the same cable. Measurements of the margin against impulsive noise at a given probability of error have been performed, and these show reasonable agreement with **predictions** based on crosstalk theory. For a simple switching event, the regenerator NEXT impulsive noise figure for the near-end crosstalk path is defined. Measurements of the mean and variance of near-end crosstalk attenuation are then used to calculate the maximum exchange section loss (from central office to first line regenerator) which satisfies a suggested error performance criterion.
CC B6210D Telephony; B6240Z Other transmission line links
CT CROSSTALK; DIGITAL COMMUNICATION SYSTEMS; ERROR STATISTICS; **TELEPHONE LINES**
ST impulsive noise crosstalk; digital line systems; multipair cable; error rates; analog telephony signaling events; regenerator NEXT impulsive noise figure; near-end crosstalk path; attenuation; maximum exchange section loss

L4 ANSWER 3 OF 7 INSPEC COPYRIGHT 2002 IEE
AB Presents a distributed algorithm for implementing alpha - beta search on a tree of processors. Each processor is an independent computer with its own memory and is connected by **communication lines** to each of its nearest **neighbours**. Measurements of the algorithm's performance on the Arachne distributed operating system are presented. A theoretical model is developed that **predicts** at least order of k/sup 1/2/ speedup with k processors.
AN 1983:1980911 INSPEC DN C83003862
TI Parallelism in alpha-beta search.
AU Finkel, R.A. (Computer Sci. Dept., Univ. of Wisconsin, Madison, WI, USA); Fishburn, J.P.
SO Artificial Intelligence (Sept. 1982) vol.19, no.1, p.89-106. 7 refs.
CODEN: AINTBB ISSN: 0004-3702
DT Journal
TC Practical
CY Netherlands
LA English
AB Presents a distributed algorithm for implementing alpha - beta search on a tree of processors. Each processor is an independent computer with its own memory and is connected by **communication lines** to each of its nearest **neighbours**. Measurements of the algorithm's performance on the Arachne distributed operating system are presented. A theoretical model is developed that **predicts** at least order of k/sup 1/2/ speedup with k processors.
CC C1230 Artificial intelligence
CT ARTIFICIAL INTELLIGENCE; DISTRIBUTED PROCESSING
ST parallelism; alpha-beta search; distributed algorithm; tree of processors; Arachne distributed operating system

L4 ANSWER 4 OF 7 INSPEC COPYRIGHT 2002 IEE
AB Summary-form only given. A one-dimensional structure based on the split-bus concept is proposed. It consists of a data loop and star-shaped control links between the centralised routing controller and processor nodes. For purposes of analysis, two models are established for the system: one for the control processor, and the other for the data loop. The job arrival process is modeled by two waiting queues in the control

processor. The model of the data **communication loop** consists of N separate models of the nodes, each of which is composed of receiving buffers, transmitting buffers and the data link connecting two **adjacent** nodes. A series of simulation experiments have been performed for 2-port split-bus, 1-port split-bus and integrated-bus systems. The same **assumptions** and conventions were made as in theoretical analysis.

ST distributed multiprocessor system; one-dimensional structure; data loop; star-shaped control links; centralised routing controller; processor nodes; control processor; job arrival process; waiting queues; **data communication loop**; models; receiving buffers; transmitting buffers; data link; simulation; 2-port split-bus; 1-port split-bus; integrated-bus systems

AN 1983:1969036 INSPEC DN B83003249; C83002090

TI Analysis and modeling of a splitted-bus distributed multiprocessor system.

AU Lan Jin; Wei-min Zheng (Dept. of Computer Engng. & Sci., Tsinghua Univ., Beijing, China)

SO Proceedings of the 1982 International Conference on Parallel Processing
Editor(s): Batcher, K.E.; Meilander, W.C.; Potter, J.L.
New York, NY, USA: IEEE, 1982. p.345-6 of x+370 pp. 7 refs.
Conference: Bellaire, MI, USA, 24-27 Aug 1982
Sponsor(s): Ohio State Univ.; IEEE

DT Conference Article

TC Theoretical; Experimental

CY United States

LA English

AB Summary-form only given. A one-dimensional structure based on the split-bus concept is proposed. It consists of a data loop and star-shaped control links between the centralised routing controller and processor nodes. For purposes of analysis, two models are established for the system: one for the control processor, and the other for the data loop. The job arrival process is modeled by two waiting queues in the control processor. The model of the data **communication loop** consists of N separate models of the nodes, each of which is composed of receiving buffers, transmitting buffers and the data link connecting two **adjacent** nodes. A series of simulation experiments have been performed for 2-port split-bus, 1-port split-bus and integrated-bus systems. The same **assumptions** and conventions were made as in theoretical analysis.

CC B0240C Queueing theory; B6210L Computer communications; C1140C Queueing theory; C5620 Computer networks and techniques; C7410F Communications; C7430 Computer engineering

CT COMPUTER INTERFACES; DATA COMMUNICATION SYSTEMS; DIGITAL SIMULATION; DISTRIBUTED PROCESSING; MULTIPROCESSING SYSTEMS; QUEUEING THEORY

ST distributed multiprocessor system; one-dimensional structure; data loop; star-shaped control links; centralised routing controller; processor nodes; control processor; job arrival process; waiting queues; **data communication loop**; models; receiving buffers; transmitting buffers; data link; simulation; 2-port split-bus; 1-port split-bus; integrated-bus systems

ET N

L4 ANSWER 5 OF 7 INSPEC COPYRIGHT 2002 IEE

AB Presents a distributed algorithm for implementing alpha -B search on a tree of processors. Each processor is an independent computer with its own memory and is connected by **communication lines** to each of its nearest **neighbors**. Measurements of the algorithm's performance on the Arachne distributed operating system are presented. A theoretical model is developed that **predicts** speedup with arbitrarily many processors.

AN 1981:1657207 INSPEC DN C81010274

TI Parallel alpha-beta search on Arachne.

AU Fishburn, J.P.; Finkel, R.A.; Lawless, S.A. (Dept. of Computer Sci., Univ. of Wisconsin, Madison, WI, USA)
SO Proceedings of the 1980 International Conference on Parallel Processing New York, NY, USA: IEEE, 1980. p.235-43 of x+349 pp. 7 refs.
Conference: Columbus, OH, USA, 26-29 Aug 1980
Sponsor(s): Ohio State Univ.; IEEE; ACM
DT Conference Article
TC Practical; Theoretical
CY United States
LA English
AB Presents a distributed algorithm for implementing alpha -B search on a tree of processors. Each processor is an independent computer with its own memory and is connected by **communication lines** to each of its nearest **neighbors**. Measurements of the algorithm's performance on the Arachne distributed operating system are presented. A theoretical model is developed that **predicts** speedup with arbitrarily many processors.
CC C1230 Artificial intelligence; C5600 Data communication equipment and techniques
CT ARTIFICIAL INTELLIGENCE; DISTRIBUTED PROCESSING
ST alpha-beta search; Arachne; distributed algorithm; alpha-B search; tree of processors; distributed operating system

L4 ANSWER 6 OF 7 INSPEC COPYRIGHT 2002 IEE
AB A set of longitudinal and metallic measurements at rural telephone stations is used with a relatively simple model to calculate cable and termination admittance unbalances, average inducing current and approximate harmonic levels. These factors quantify major causes of interference due to power line **proximity** to **communications lines**. All results have been verified except cable admittance, which is close to expected values. Perturbations of the model are used to **predict** the effects of general mitigation.
CT ELECTRIC NOISE MEASUREMENT; TELEPHONE INTERFERENCE; **TELEPHONE LINES**
ST noise measurements; inductive interference; rural telephone stations; model; harmonic levels; **power line proximity**; **communications lines**; cable admittance; admittance unbalance
AN 1977:1040615 INSPEC DN B77017915
TI Using noise measurements to define conditions causing inductive interference.
AU Guzik, S.W.; Knowles, A.K. (Bell-Northern Res., Ottawa, Ont., Canada)
SO 1976 National Telecommunications Conference. I
New York, NY, USA: IEEE, 1976. p.12.5/1-5 of xxix+432 pp. 0 refs.
Conference: Dallas, TX, USA, 29 Nov-1 Dec 1976
Sponsor(s): IEEE; et al
DT Conference Article
TC Application; Experimental
CY United States
LA English
AB A set of longitudinal and metallic measurements at rural telephone stations is used with a relatively simple model to calculate cable and termination admittance unbalances, average inducing current and approximate harmonic levels. These factors quantify major causes of interference due to power line **proximity** to **communications lines**. All results have been verified except cable admittance, which is close to expected values. Perturbations of the model are used to **predict** the effects of general mitigation.
CC B5230 Electromagnetic compatibility and interference; B6220C Telephone stations
CT ELECTRIC NOISE MEASUREMENT; TELEPHONE INTERFERENCE; **TELEPHONE**

LINES

ST noise measurements; inductive interference; rural telephone stations; model; harmonic levels; **power line proximity**; **communications lines**; cable admittance; admittance unbalance

L4 ANSWER 7 OF 7 INSPEC COPYRIGHT 2002 IEE

AB An examination is made of a hierarchical system of rank n with unoriented **communication lines** between the objects of different ranks and with a retranslational nature of connection. Each object of the system is connected with objects of the preceding two and following two ranks. There are no restrictions on the connection of objects with each other that are **adjacent** to the same object of the next higher rank. There are no lines of communication between objects **adjacent** to different objects of the next higher rank. Under the **assumption** of known probabilities of failure of objects and of the **communication lines** and under the **assumption** of their mutual independence, the mean number of objects of rank n that are connected with the initial object of the system is found.

ST probabilistic characteristics; hierarchical systems; complicated ordering; failure; rank; **communication lines**; mutual independence; mean number of objects; initial object

AN 1975:771141 INSPEC DN C75012859

TI Probabilistic characteristics of hierarchical systems with a complicated ordering.

AU Gadasin, V.A.

SO Engineering Cybernetics (March-April 1974) vol.12, no.2, p.44-51. 7 refs.
CODEN: ENCYAF ISSN: 0013-788X
Translation of: Tekhnicheskaya Kibernetika (March-April 1974) vol.12, no.2, p.59-65. 7 refs.
CODEN: TEKIB8

DT Journal; Translation Abstracted

TC Theoretical

CY USSR; United States

LA English

AB An examination is made of a hierarchical system of rank n with unoriented **communication lines** between the objects of different ranks and with a retranslational nature of connection. Each object of the system is connected with objects of the preceding two and following two ranks. There are no restrictions on the connection of objects with each other that are **adjacent** to the same object of the next higher rank. There are no lines of communication between objects **adjacent** to different objects of the next higher rank. Under the **assumption** of known probabilities of failure of objects and of the **communication lines** and under the **assumption** of their mutual independence, the mean number of objects of rank n that are connected with the initial object of the system is found.

CC C1210B Reliability theory; C1210 General system theory

CT HIERARCHICAL SYSTEMS; PROBABILITY; RELIABILITY THEORY

ST probabilistic characteristics; hierarchical systems; complicated ordering; failure; rank; **communication lines**; mutual independence; mean number of objects; initial object

=> d his all

(FILE 'HOME' ENTERED AT 11:11:51 ON 22 NOV 2002)

FILE 'INSPEC' ENTERED AT 11:12:07 ON 22 NOV 2002

L1 658163 S (ASSUM? OR PREDICT?)

L2 125062 S ADJACENT OR NEIGH? OR PROX?

L3 7529 S (LINE OR LOOP) (A) (TELEPHONE OR PHONE OR TELECOMMUNICATION O

L4 7 S L1 AND L2 AND L3